Notice of Allowability	Application No.	Applicant(s)	
	10/036,710	STRONG ET AL.	
	Examiner	Art Unit	
	Phirin Sam	2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *10/09/2007*.

2. ☒ The allowed claim(s) is/are *1-19,21-57,59-73,97-105,107-111,113-123,125,126,128-146,148-167 and 192*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

PHIRIN SAM
PRIMARY EXAMINER

DETAILED ACTION

Allowable Subject Matter

1. The following is an examiner's statement of reasons for allowance:

Regarding claims 1-19 and 21-50, the prior arts do not disclose controlling the wireless signals produced by the wireless tag identification system to minimize interference of the wireless signals with wireless communication of the wireless communication system, wherein the step of controlling the wireless signals comprises increasing a percentage time that the wireless tag identification system is permitted to transmit wireless signals during lower communication activity periods for the wireless communication system; and decreasing a percentage time that the wireless tag identification system is permitted to transmit wireless signals during higher communication activity periods for the wireless communication system.

Regarding claims 51-53, 59, and 60, the prior arts do not disclose using a first technique to determine the likelihood that the tag is within acceptable communication range, the first technique including using a subset of tag sensors in the wireless tag identification system to identify the presence of a tag; and using a second technique to collect data from the tag if the tag is determined likely to be within an acceptable communication range, the second technique including using at least one tag sensor not in the subset to collect data from the tag.

Regarding claims 54-57, the prior arts do not disclose using a first technique to determine the likelihood that the tag is within acceptable communication range, the first technique including aborting a full tag search procedure that includes a plurality of sequences if a correlated magnitude of a signal received in a first sequence is below a threshold; and using a

second technique to collect data from the tag if the tag is determined likely to be within an acceptable communication range.

Regarding claims 61-73, the prior arts do not disclose using a first technique to determine the likelihood that the tag is within acceptable communication range, the first technique including using one type of signal used to search for tags; and using a second technique to collect data from the tag if the tag is determined likely to be within an acceptable communication range, the second technique including using another type of signal to collect data from the tag.

Regarding claims 97-104, 109-111, 113-122, and 137-143, the prior arts do not disclose means for controlling wireless signals produced by the at least one tag sensor to minimize interference of the wireless signals with wireless communication of a wireless communication system taking place within the coverage area of the at least one tag sensor, wherein the means for controlling adjusts a duty cycle of at least one tag sensor in the wireless tag identification system from a first duty cycle setting to a second duty cycle setting based on previously received signals from tags to provide an adjusted percentage time during which the wireless communication system is permitted to communicate using wireless signals.

Regarding claims 105, 107, 108, 144, and 145, the prior arts do not disclose means for controlling wireless signals produced by the at least one tag sensor to minimize interference of the wireless signals with wireless communication of a wireless communication system taking place within the coverage area of the at least one tag sensor; wherein the means for controlling the wireless signals synchronizes duty cycles of at least two tag sensors in the wireless tag

identification system, and a first tag sensor is a master tag sensor and other tag sensors are notified when the other tag sensors are permitted to transmit wireless signals.

Regarding claims 123, 125, 126, and 128-136, the prior arts do not disclose means for controlling wireless signals produced by the at least one tag sensor to minimize interference of the wireless signals with wireless communication of a wireless communication system taking place within the coverage area of the at least one tag sensor; wherein the means for controlling determines if wireless signals related to the wireless communications network are likely being transmitted by detecting a change in energy in at least one communication channel and determines if energy in a communication channel that is indicative of wireless signals related to the wireless communications network is absent for a period longer than a threshold.

Regarding claims 146, 148-155, and 167, the prior arts do not disclose means for controlling how wireless signals are generated by the tag sensor, the means for controlling using a first technique to determine the likelihood that the tag is within acceptable communication range, and using a second technique to collect data from the tag if the tag is determined likely to be within an acceptable communication range; wherein the first technique comprises adjusting a tag search procedure based on at least one signal received from tags.

Regarding claims 156-166, the prior arts do not disclose means for controlling using a first technique to determine the likelihood that the tag is within acceptable communication range, and using a second technique to collect data from the tag if the tag is determined likely to be within an acceptable communication range; wherein the first technique comprises using a first type of signal used to search for tags; and the step of using the second technique comprises using a second type of signal to collect data from the tag.

Regarding claim 192, the prior arts do not disclose controlling the wireless signals produced by the wireless tag identification system to minimize interference of the wireless signals with wireless communication of the wireless communication system; and sending a signal between the wireless tag identification system and the wireless communication system that indicates a control of the timing at which wireless signals are permitted to be produced by the wireless tag identification system.

Conclusion

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(1) US Patent 6,825,763 (Ulrich et al) discloses personnel and asset tracking method and apparatus.

(2) US 2002/0171534 (Ashwin) discloses identification system.

(3) US Patent 5,959,568 (Woolley) discloses measuring distance.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phirin Sam whose telephone number is (571) 272-3082. The examiner can normally be reached on Increased Flexitime Policy (IFP) Program.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272 - 2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Respectfully submitted,

Date: December 22, 2007

PHIRIN SAM
PRIMARY EXAMINER